In 2010 the San Juan Basin Authority (SJBA) engaged Wildermuth Environmental, Inc. (WEI) to update their San Juan Basin Groundwater Management and Facilities Plan (SJBGMFP). WEI teamed with Carollo Engineers and Michael Bradman and Associates to complete this work. This administrative draft report documents the efforts of the stakeholders and our team to update the SJBGMFP. Specifically, this report documents the current state of the basin (SOB), the conceptual model of the hydrologic system, the environmental and infrastructure resources in the investigation area, management goals and impediments to the goals, management alternatives, recommended management plan(s), and a monitoring and reporting plan.

1.1 Scope of Work

The SJBA member agencies include: the City of San Juan Capistrano (CSJC), the Moulton Niguel Water District (MNWD), the Santa Margarita Water District (SMWD), and the South Coast Water District (SCWD). All member agencies of the SJBA are highly dependent on imported water from the Metropolitan Water District of Southern California (MWDSC). MWDSC supplies consist primarily of State Water Project (SWP) water and Colorado River Aqueduct (CRA) water, both of which have been permanently reduced and are now less reliable. MWDSC's water rates to retail agencies have increased dramatically in the last several years and are projected to continue to increase into the future. The SJBA member agencies need to develop more local supplies and local storage to improve supply reliability, reduce their demands on MWDSC, mitigate temporary interruptions of supply from MWDSC, and minimize their exposure to penalties in the drought allocation plan.

The range in groundwater management plans includes the following:

- Preserve the status quo. Complete existing planned projects and rely on MWDSC to serve all water above and beyond existing local supplies. In this alternative the SJBA member agencies will purchase the maximum amount of MWDSC water relative to other alternatives and be subject to MWDSC's rate structure and drought penalties.

- Maximize the use of local water. Complete existing planned projects and then maximize the use of all local water including storm water, native groundwater, and recycled water. In this alternative, the SJBA members will use all their recycled water, the full yield of the groundwater basins and will maximize the recharge of storm water pursuant to the MS4 permit and other opportunistic storm water recharge projects. Existing infrastructure would be leveraged to the maximum extent possible and new infrastructure would be added as required.

- Maximize the use of local water and recycled water. This alternative is identical to the above alternative except that it recharges supplemental water as necessary to maintain or increase supply and supply reliability.

We investigated how to best manage the San Juan groundwater basin under these types of planning concepts, how each SJBA member and other stakeholders would be impacted,

mitigation measures and costs. Some of the management concepts considered herein push the regulatory envelope and may require changes in the current Basin Plan and in the indirect recycled water reuse paradigm. We have identified how the current regulatory paradigm limits the management plan and developed reasonable changes in the regulatory paradigm to improve management plan performance and presented both types of plans to the SJBA for their consideration.

The investigation considered all the water resources of the San Juan Creek watershed but limited the application of management activities to the surface and ground waters of the lower part of the watershed between the Pacific Ocean at the most downstream end of the watershed to the Ortega Highway bridge on San Juan Creek and to near the confluence of the Arroyo Trabuco and Oso Creeks on the Arroyo Trabuco. The investigation area is s referred to as the active management area or the active storage area later in this document. The active management area was developed in Task 4 and was approved by the SJBA TAC during the 2013 SJBGFMP development process.

The scope of work included the following tasks:

- Task 1 Define Water Management Objectives
- Task 2 Describe Planning Area and its Resources
- Task 3 Describe Historical and Future Water Requirements
- Task 4 Describe Existing Resources
- Task 5 Describe Water Management Issues and Strategies
- Task 6 Define Alternative Management Plans
- Task 7 Evaluate Alternative Management Plans
- Task 8 Describe Recommended Management Plan.
- Task 9 Develop Monitoring and Reporting Protocols
- Task 10 Prepare Groundwater Management Plan Report
- Task 11 Project Meetings and Coordination Activities
- Task 12 Preliminary CEQA Analysis
- Task 13 Project Management

1.2 Organization of this Report

Section	Title	Description
1	Introduction	
2	Planning Area and its Resources	Describes planning area and the resources to be evaluated in a CEQA checklist
3	Existing Water Resources	Describes the surface and groundwater resources, water rights, groundwater response to continuing the current management plan, and water facilities infrastructure
4	Historical and Projected Water Demand	Describes the historical water use and sources and future water demands and supply plans
5	Management Goals and Impediments	Describes the management goals and impediments to the goals and other "issues needs and wants" of the SJBA member agencies
6	Strategies and Actions to Achieve Management Objectives	Describes strategies and actions that will overcome the impediments to the management goals and management plan alternatives
7	Alternative Management Plans	Describes the evaluation of the management plans based on ability to meet management plan goals, cost and ability to implement
8	Implementation and Monitoring Plans	Describes the SJBGFMP implementation and monitoring plans
9	References	Contains the list of reference documents consulted in the preparation of the SJBGFMP
A	Appendix – Comments and Responses to Comments	Contains verbatim comments and responses on the draft SJBGMFP report.